



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,701	12/06/2000	Yutaka Maruyama	1232-4475US1	6870
7590 06/02/2004			EXAMINER	
MORGAN & FINNEGAN, L.L.P.			TUGBANG, ANTHONY D	
345 Park Avenue			ART UNIT	
New York, NY 10154			PAPER NUMBER	
			3729	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/729,701	Applicant(s) MARUYAMA ET AL.	
	Examiner A. Dexter Tugbang	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/162,378.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/10/04 has been entered.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 14, and 17-23, drawn to a vibration type driving apparatus, classified in class 310, subclass 323.08.
 - II. Claims 24-26, drawn to a resin composition, classified in class 252, subclass 511.
3. Inventions of Groups II and I are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product (Group II) is deemed to be useful as a resin composition in other products than a vibration type driving apparatus, such as a sensor or printed circuit board, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the

Art Unit: 3729

species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. If the invention of Group I is elected, this application contains claims directed to the following patentably distinct species of the claimed invention.

Species A, directed to specific compositions of a resin composition, Claims 18-21; and

Species B, directed to a mesophase pitch based carbon fiber exhibiting optically anisotropy which when heated changes from a liquid phase to a solid phase, Claim 23.

NOTE: Species A and B are mutually exclusive from each other.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claim 14 is generic in the invention of Group I.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after

Art Unit: 3729

the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. Newly submitted Claims 23-26 are directed to an invention that is independent or distinct from the invention originally claimed for the reasons set forth above.

Since applicant has received an action on the merits for the originally presented invention (Group I, Species A), this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, Claims 23-26 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14, 17, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imasaka et al 5,150,000 in view of Watanabe et al 5,068,052.

Imasaka et al discloses a vibration type driving apparatus comprising the following structure: a vibration member (piezoelectric element 1a in Fig. 2); a contacting member (stator 2a) contacting the vibration member; and a friction member 4a provided on the contacting portion (top surface) of the contacting member 2a.

Regarding Claim(s) 14 and 19, Imasaka teaches at least one example in that the friction member 2a is formed from a resin composition containing a pitch based carbon fiber and at least polyimide resin (see col. 2, lines 33+ and Table 2).

Regarding Claim(s) 17, Imasaka shows at least two examples (A and B in Table 2) that the content of the pitch based carbon fiber in the friction member can be either 10 or 20 wt%.

Regarding Claim(s) 22, Imasaka further teaches that the vibration type driving apparatus is a motor, which acts a drive source for electric power (see col. 1, lines 13+).

Imasaka does not appear to mention that the pitch based carbon fiber is in a “mesophase” state such that it can be called a “mesophase pitch based carbon fiber”. It is noted that the term mesophase is defined as the degree to which the carbon fiber has liquid crystalline properties¹.

Watanabe teaches that allowing carbon fibers to be in a mesophase pitch based state with a degree of liquid crystalline properties (see Claims 4 and 5), has the advantages of providing a resin composition with suitable molding properties (see col. 4, lines 44-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the carbon fibers of Imasaka by forming the carbon fibers in a “mesophase pitch based” state, as taught by Watanabe, to positively provide a resin composition with suitable molding properties.

¹ IUPAC Compendium of Chemical Terminology.

Art Unit: 3729

9. Claims 18, 20 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Imasaka et al in view of Watanabe et al, as applied to claim 14 above, and further in view of Tamai et al 5,380,805.

Imasaka, as modified by Watanabe, discloses the claimed apparatus as previously discussed above. The modified Imasaka apparatus does not mention the specific resin compositions recited in each of Claims 18, 20 and 21.

Tamai suggests that resin compositions can include either one of a fluoresin, molybdenum disulfate, or a polyimide powder (see col. 39, lines 3+), for the benefits of improving wear resistance in the molded resin composition (see col. 17, lines 13+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the resin composition of Imasaka by utilizing the various compositions of resins taught by Tamai, to provide the benefits of mechanical strength and improved wear resistance in the resin composition of the friction member.

Response to Arguments

10. Applicant's arguments with respect to Claims 14 and 17-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

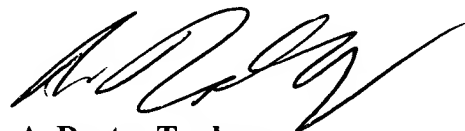
Art Unit: 3729

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599.

The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

June 1, 2004